

Materiel Readiness Enabled Through “Sense and Respond”

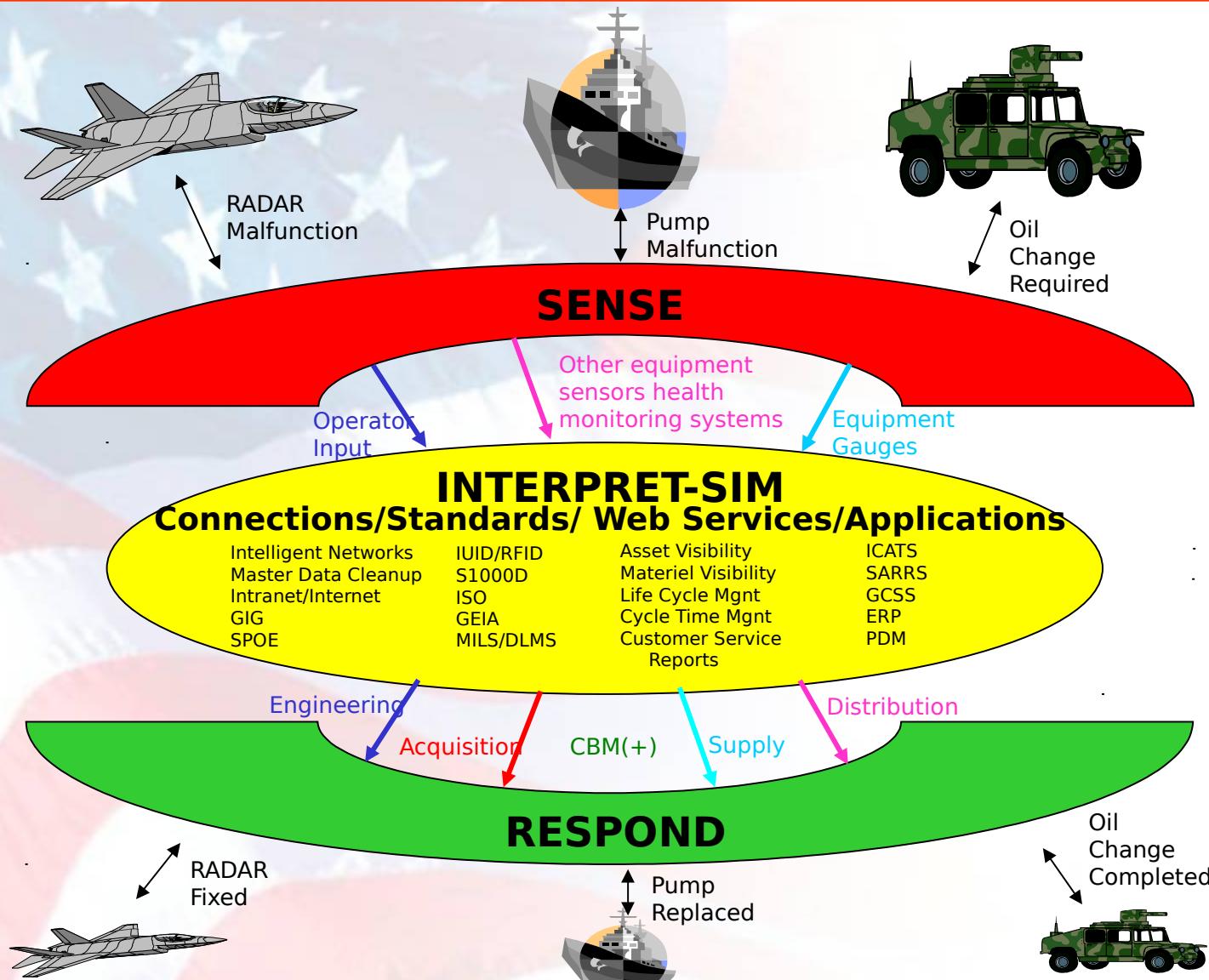
Optimized Logistics Increasing Momentum Within DoD Maintenance



John Peterson
OADUSD (Materiel Readiness & Maintenance Policy)



Sense-Interpret-Respond





Description

- **Sense** - An abnormal or timed event occurs
 - Sensing mechanisms are triggered:
 - Operator Input
 - CBM(+)
 - Equipment Gauges
 - Other equipment health monitoring systems
 - Sensed event/condition may effect system capability, dependability, and/or availability



Description

- **Interpret** – Understanding event condition by enabling relevant information/data systems to communicate
 - Mechanisms to facilitate data interpretation:
 - Connections – The connection of sensed data's relationship to databases of information about the situation. (e.g. IUID/SIM, MIS, WAWF, DSS, technical data, etc.)
 - Standards – Compare data standards between the database elements and convert as necessary to the desired format. (e.g. Validate/convert S1000D, GEIA, PLCS, legacy, etc. data to a common standard)
 - Web Services – The transformation of the resulting data into actionable information surrounded by security access rights (e.g. Asset visibility, materiel visibility, cycle time management, etc.)
 - Applications – The systems delivering timely and accurate information so people can make best case decisions (e.g. ERP, PDM, supply/logistics systems, etc.)

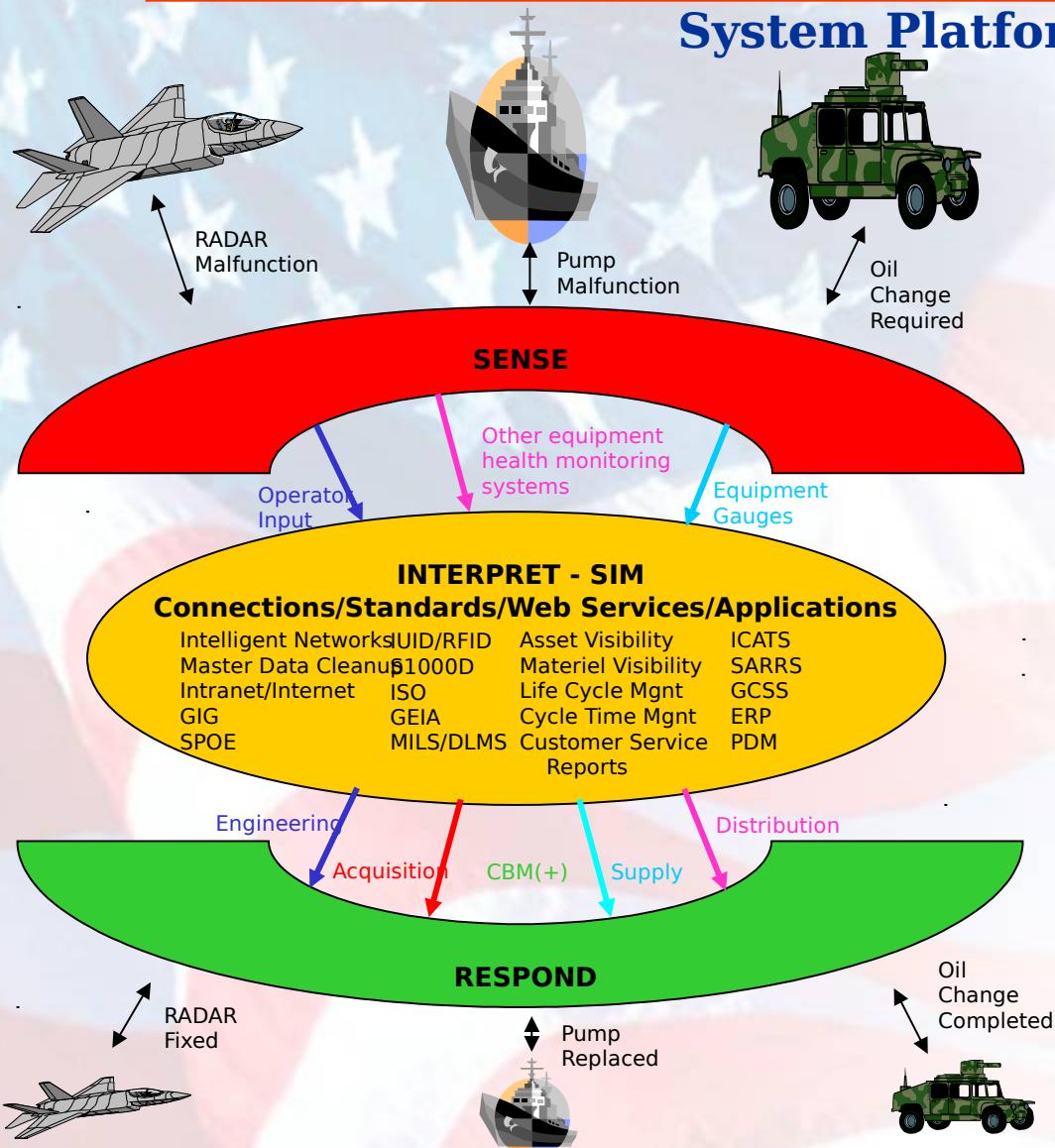


Description

- **Respond** – Restore system integrity using interpreted data for sensed event via:
 - Integrated application of functional disciplines
 - Engineering – Test/Analyze/Predict/Prevent/(re)design
 - Acquisition – Procure materiel fix(es)
 - Maintenance – Incorporate materiel fixes
 - Supply – Provide piece part support – Materiel visibility
 - Distribution – Deliver required materiel to the right location at the right time
 - System materiel readiness restored effectively and efficiently



Business Processes and IT Technology Stack Required to Deliver a Common Maintenance Process to a Weapon



Core S&R Function	Weapon System Programs				
	Marine LAV Sensor, IUID, data	Joint Strike Fighter - PM S&R, IUID, data	HMMWV PLCS, IUID, data	H60 ELITE PLCS	DDX/FCS
Sense & Respond	●	●	●	○	○
Interpret Connections (Intelligent Network, Master Data Cleanup)	●	●	●	○	○
Interpret Standards (PLCS, S1000D, GEIA, IUID/RFID, etc.)	●	●	●	●	○
Interpret Web Services (ICATS)	●	●	●	○	○
Interpret Applications (ERP, PDM/PLM, Supply/Logistics Systems)	●	●	●	○	○



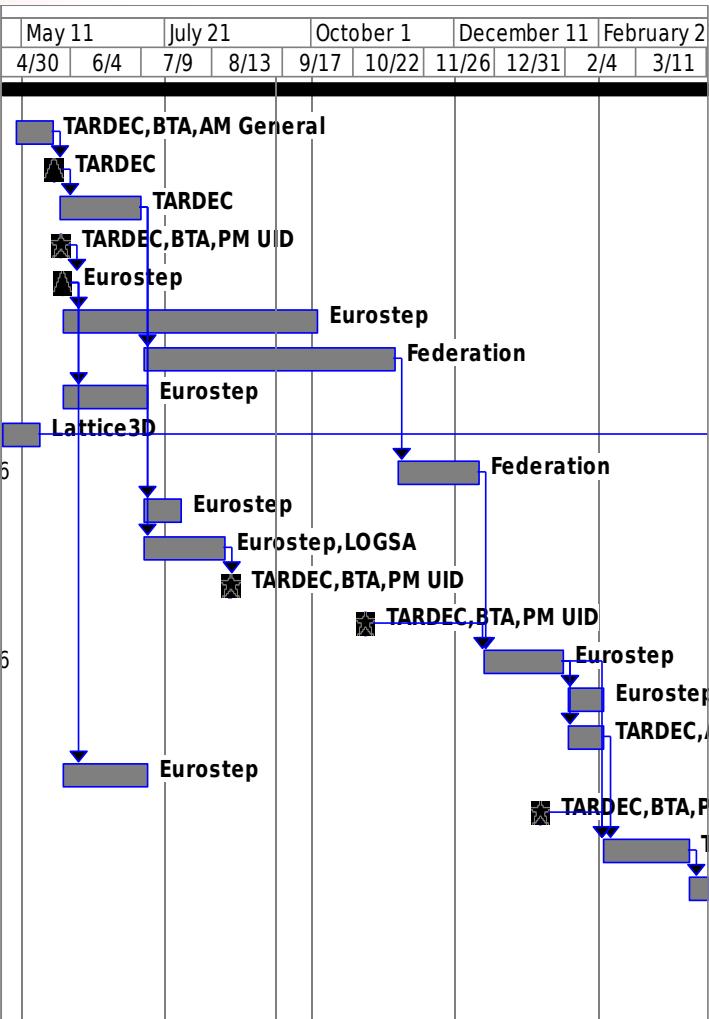
Status and Next Steps

Core S&R Function	Weapon System Programs					Next Steps
	Marine LAV Sensor, IUID, data	Joint Strike Fighter - PM HMMWV ICATS data	TARDEC SPOE data	H60 ELITE (PLCS)	DDX/FCS	
Sense & Respond	●	○	●	○	○	<ul style="list-style-type: none">Continue to participate with Marine LAV and UMD (F-18) to enable S&R, IUID, master data cleanup and data interoperabilityContinue to rationalize the various data interoperability programsWork with BTA on SPOE and next generation GIG rationalizationWork with TLCMS and LPP to select software vendors/standards to enable required capabilities in design and sustainment (F-18)Work with BTA on materiel visibility programs to take current functionality and expand it to other Service systemsMonitor BTA progress on Master Data and MIL/DLMS programs
Interpret Connections (Intelligent Network Master Data Cleanup)	○	○	○	○	○	<ul style="list-style-type: none">Marine LAV - 11 sensed vehicles the response mechanisms are in place.JSF - 10 sensed vehicles the response mechanisms are in place. Marine LAV - This needs to be developed as system data strategy. SPOE could be re-used if available on timeJSF - SPOE program sponsored by BTA
Interpret Standards (PLCS, S1000D, GEIA, IUID/RFID, etc.)	●	●	○	●	○	<ul style="list-style-type: none">ELITE (PLCS) - H60 AMC/NavAir/Sikorsky (Standards Rationalization)CLOE vs. JALog vs. SPAWARS vs. BWS vs. Etc.
Interpret Web Services (ICATS)	●	○	●	○	○	<ul style="list-style-type: none">Marine LAV - ICATS possible with work to be defined and completedJSF - ICATS possible due to this being an Air Force system
Interpret Applications (ERP, PDM/PLM Supply/Logistics Systems)	○	○	○	○	○	<ul style="list-style-type: none">Marine LAV - BTA working Master Data and MILS/DLMSJSF - BTA working Master Data and MILS/DLMS



TARDEC HMMWV PLCS-IUID

ID	Task Name	Duration	Start
1	TACOM-HMMWV PLCS Pilot	291 days?	Mon 5/1/06
2	Develop & refine project plan with deliverables & milestones with	14 days	Mon 5/8/06
3	Implementation architecture and methodology (Deliverable)	1 day?	Fri 5/26/06
4	Contract prep with Federation and Eurostep	30 days	Mon 5/29/06
5	Program review meeting	1 day?	Mon 5/29/06
6	UID schema based on PLCS DEX (Deliverable)	1 day?	Tue 5/30/06
7	Formalization of UID schema through OASIS	90 days	Wed 5/31/06
8	Development of SAP PLCS Federation adapters	90 days	Mon 7/10/06
9	Implementation of PLCS based UID exchange to DOD Registry	30 days	Wed 5/31/06
10	Integration with Lattice3D 3D visualization viewer	14 days	Mon 5/1/06
11	PLCS tech data Integration between AMG's SAP PLM and TACOM	30 days	Mon 11/13/06
12	Installation and integration of Share-a-space with Windchill	14 days	Mon 7/10/06
13	Integration of LSAR data from AMG's Powerlog into Share-a-space	30 days	Mon 7/10/06
14	Program review meeting	1 day?	Mon 8/21/06
15	Program review meeting	1 day?	Fri 10/27/06
16	Integration of tech data and log data in PLCS format into Share-a-space	30 days	Mon 12/25/06
17	Develop PLCS functional views based on Share-a-space	14 days	Mon 2/5/07
18	Load "as-designed" armor kits data into system from SAP	14 days	Mon 2/5/07
19	Develop PLCS based UID exchange between AM General's SAP and TACOM	30 days	Wed 5/31/06
20	Program review meeting	1 day?	Mon 1/22/07
21	Load "as-built" armor kit configurations as they become available	30 days	Fri 2/23/07
22	Develop "what-is" scenarios based on integrated system	30 days	Fri 4/6/07
23	Pilot demonstrations of integrated system / Meeting at TACOM	1 day?	Fri 5/18/07
24	Develop business case including ROI analysis for system	15 days	Mon 5/21/07
25	Final project report completed (Deliverable)	1 day?	Mon 6/11/07





Marine LAV Phase 1

PHASE I EVENT	RESPONSIBILITY
Develop demonstration project plan	PMLAV
Select components to mark in demonstration phase	PMLAV
Establish IUID marking guidelines	PMLAV
Procure IUID marking equipment	PMLAV
Identify IUID training requirements	PMLAV
Modify VAMMP program to integrate IUID	JDSR
Identify requirements for integration of VAMMP IUID data to infrastructure (AMIS)	JDSR
Complete Proof of Concept demonstration	PMLAV



Marine LAV Phase 2

PHASE II EVENT	RESPONSIBILITY
Review lesson learned in Phase I	PMLAV
Identify benefits/risks discovered during Phase I	PMLAV
Identify necessary action to reduce risk	PMLAV
Develop detailed overall Project Plan	PMLAV
Rewrite VAMMP in a web based application	JDSR
Ensure compliance with MIL-STD-130L	PMLAV
Procure UID Marking equipment	PMLAV
Complete training	PMLAV
Modify existing policies and procedures for UID	PMLAV
Complete integration with IUID database	PMLAV/JDSR
Identify and address remaining implementation issues	PMLAV
Initiate marking of parts	PMLAV
Define business rules to gain maximum benefit from IUID implementation	PMLAV
Write Final Project Report	PMLAV

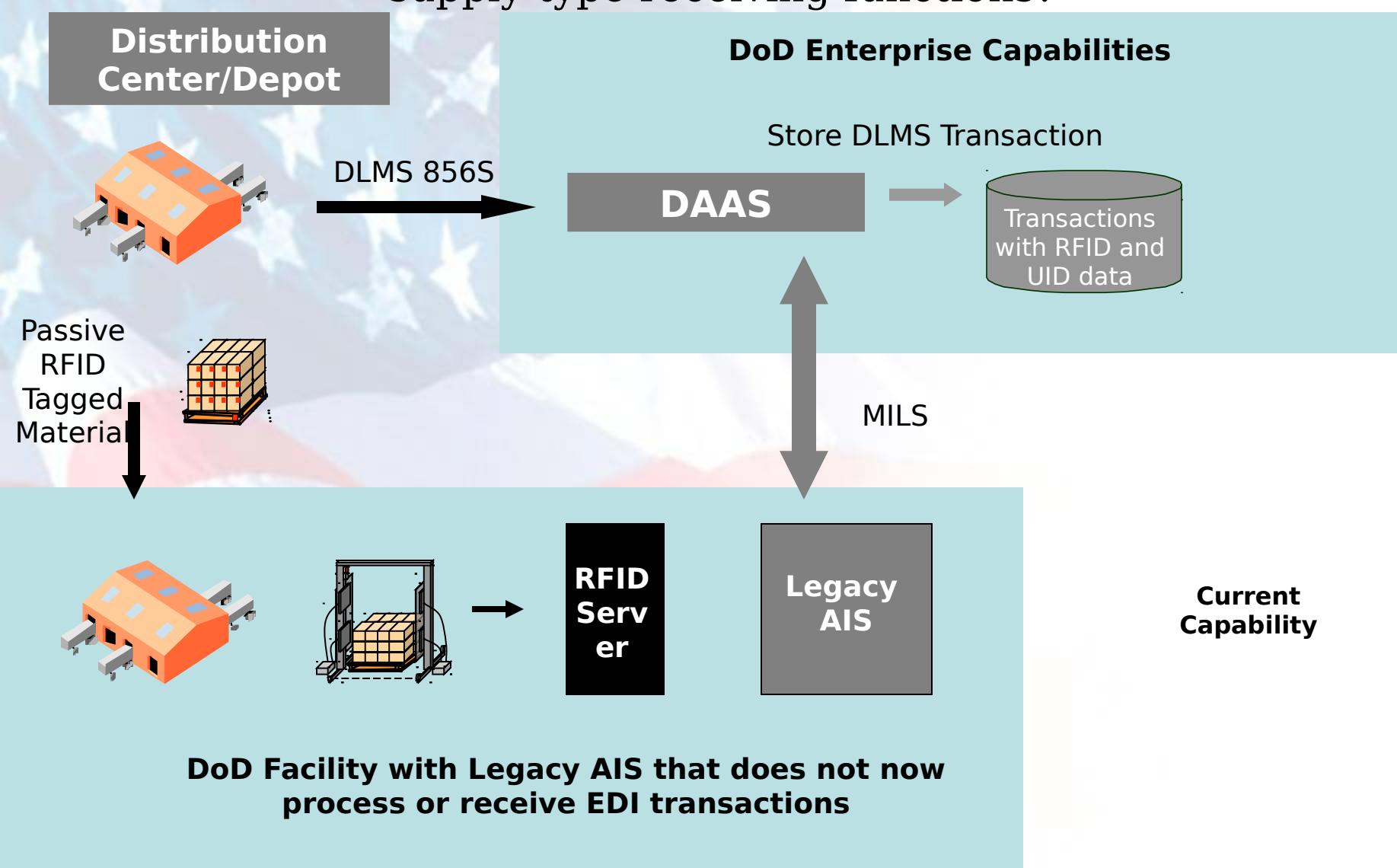


DLMS Bridge Prototype

DLMSO/DAASC
September 2006

The legacy AIS processes MILS transactions and related data.

Problem: How can the legacy AIS use passive RFID data to perform supply-type receiving functions?





Related Issues and Objectives

- Related Issues (Problems):

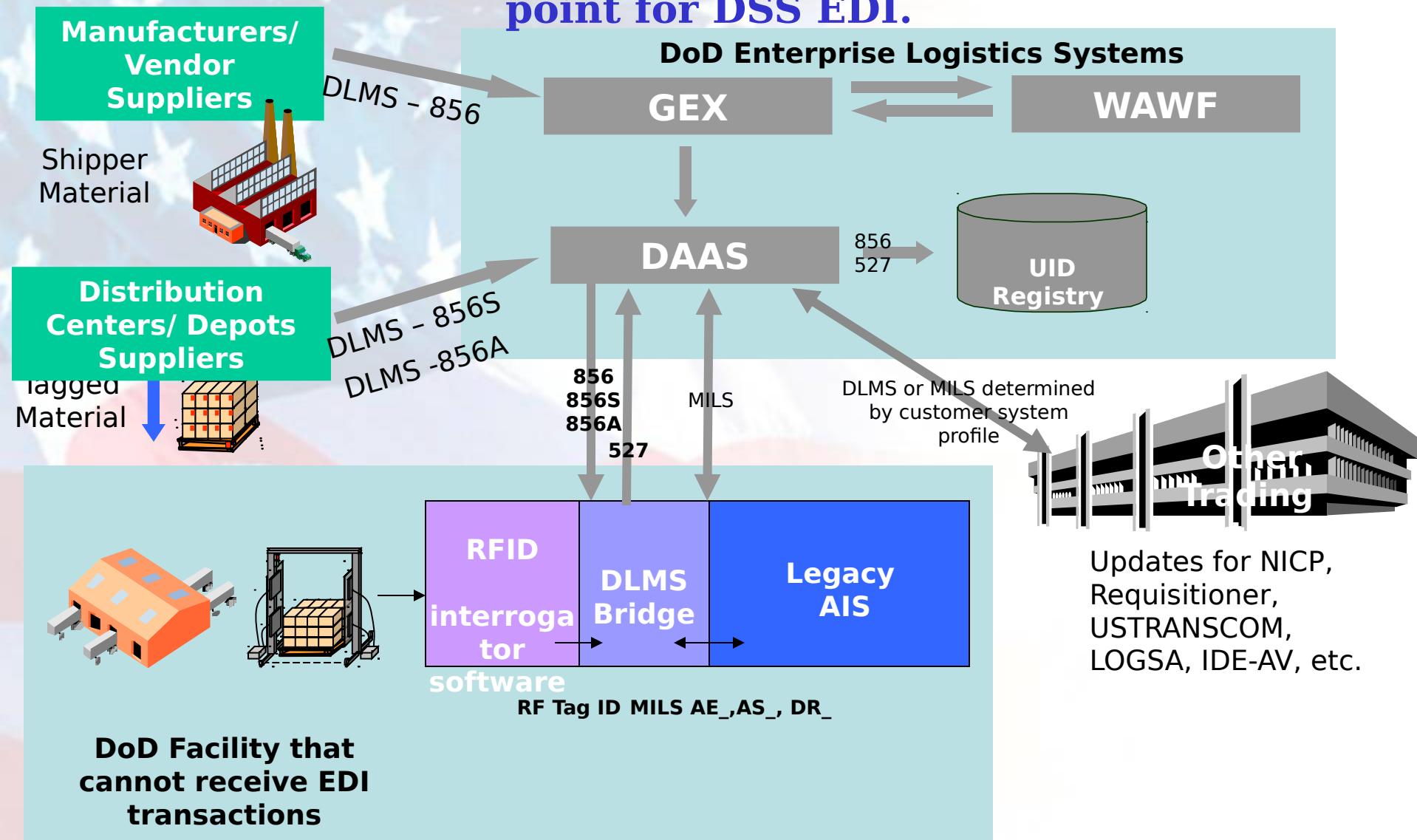
- Inability of legacy systems to operate in DLMS environment now (not until 2010, 2011, 2012 or beyond for permanent solution, ERP, etc.)
- Lack of middleware solution for integration of RFID and legacy systems
- Lack of data exchange and visibility due to legacy systems inability to accept RFID, IUID, etc.

- Objectives (Desired Outcome):

- Enable use of RFID data by legacy systems (sooner rather than later), provide *temporary* solution until permanent is available
- Enable DLMS transactions and RFID receiving process (system integration) through DLMS middleware
- Provide data exchange and visibility through DLMS middleware functionality



Middleware Solution: RFID data flows from the shipping activities to the DoD legacy systems. GEX is the entry point for Manufacturers (or Vendors) EDI and DAASC is the entry point for DSS EDI.





DLMS Bridge Prototype - What Has Actually Been Done?

- A DLMS Bridge prototype has been developed (as briefed Jan 06).
 - Middleware for use between Passive RFID (PRFID) and legacy logistics system (AIS).
 - External interfaces unspecified so emulations used (PRFID test kit).
 - Completed without benefit of a site survey (some educated guesses).
- The “Bridge” has several discrete capabilities including:
 - A “Normalizer” to account for variations in X12 transactions
 - Data processor to “parse” the incoming data into reusable form
 - Database to manage the tag and transaction data
 - DLMS to MILS mapping capability for legacy transactions (works with 856S for now)
 - DDN wrapper for MILS transactions
 - Basic error handling for mismatches between DLMS 856S and RFID data
 - Limited query capability for tag reads
 - Notification transaction capability for DAASC update.



What Does the Prototype

Do?

- Processes Passive RFID tag read data and DLMS 856S data (with placeholder for IUID).
- Converts DLMS transactions to corresponding MILS transactions.
- Prepares new transactions for reporting purposes (DAASC, LOTS and legacy logistics system).
- Can be modified to accommodate user defined output requirements other than DLMS or MILS ("flat file", "data set", XML, etc.).

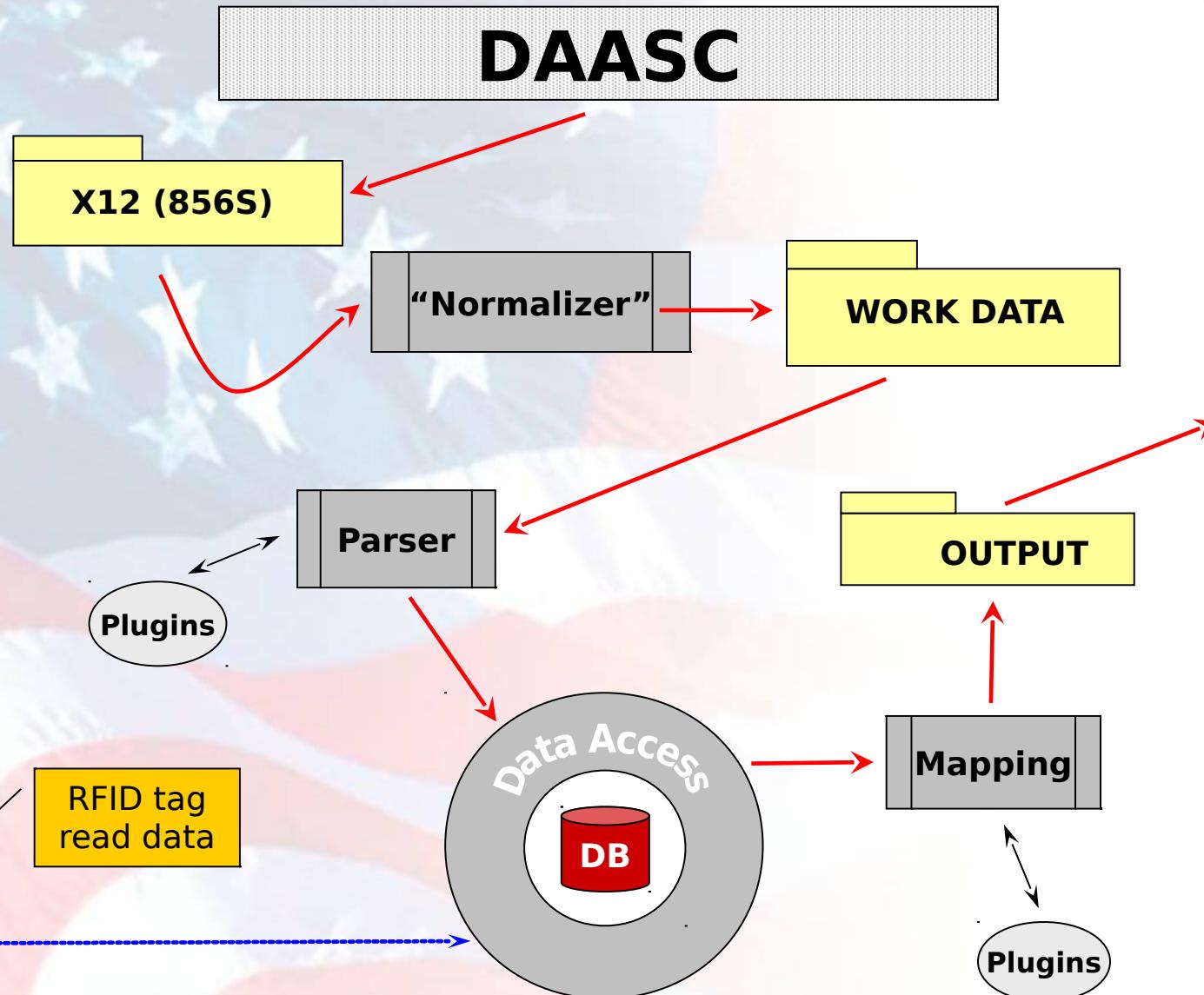


DLMS Bridge Processing Flow



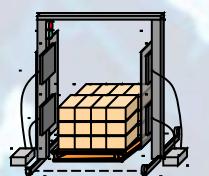
Passive RFID

Legacy





DLMS BRIDGE Architecture



RFID
Tag
Read

RFID System Interface
(Expandable Library of RFID System Specs & Interfaces)

Install & Setup

(User selects the RFID and Legacy System interfaces - via Drop Down Menus - for site installation)

Business Rules

(Library of Business Rules Applicable to Site, Business Processes, Legacy Systems, any Service Specific Rules)

Translation Maps

(Expandable Library of Maps: DLMS to MILS, DLMS to UDF, MILS to DLMS, UDF to DLMS etc.)

856S, or 856, 856A, 527D, 527R, 842, 861 and others

Transaction Database

(tailored to work with other databases such as SQL, Oracle, DB2, etc.)

Communications Interface
(Expandable Library of Application

Program Interface Plug-In
Or Connectors to Legacy Systems and DAAS)

Legacy Systems and DAAS

Technical Architecture: Modular Construction, Hardware Independent, JAVA-Multiple O/S (Win XP & Linux for now), Centralized Configuration Management



Summary

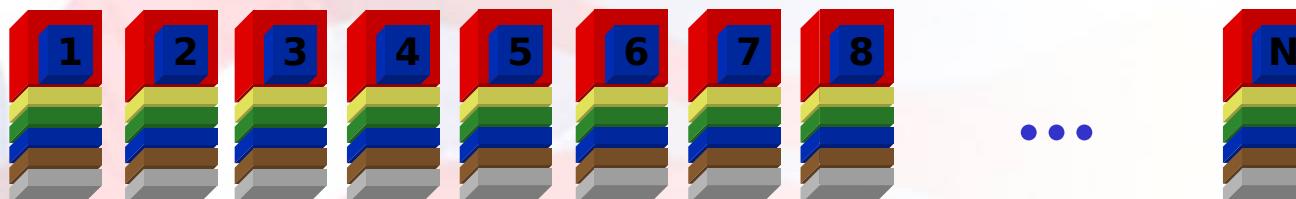
- The DLMS Bridge prototype has technical capabilities that provide DLMS to MILS translation; it can be modified to process other transactions as needed (UDF, data set, etc.).
- The DLMS Bridge prototype is a “middleware” solution that also addresses other challenges coming soon (IUID data, finance (SFIS) data, transportation data, etc.).
- It is ready now for tailoring to a specific system (next step - schedule a site survey).



Enterprise Integration Hub Features



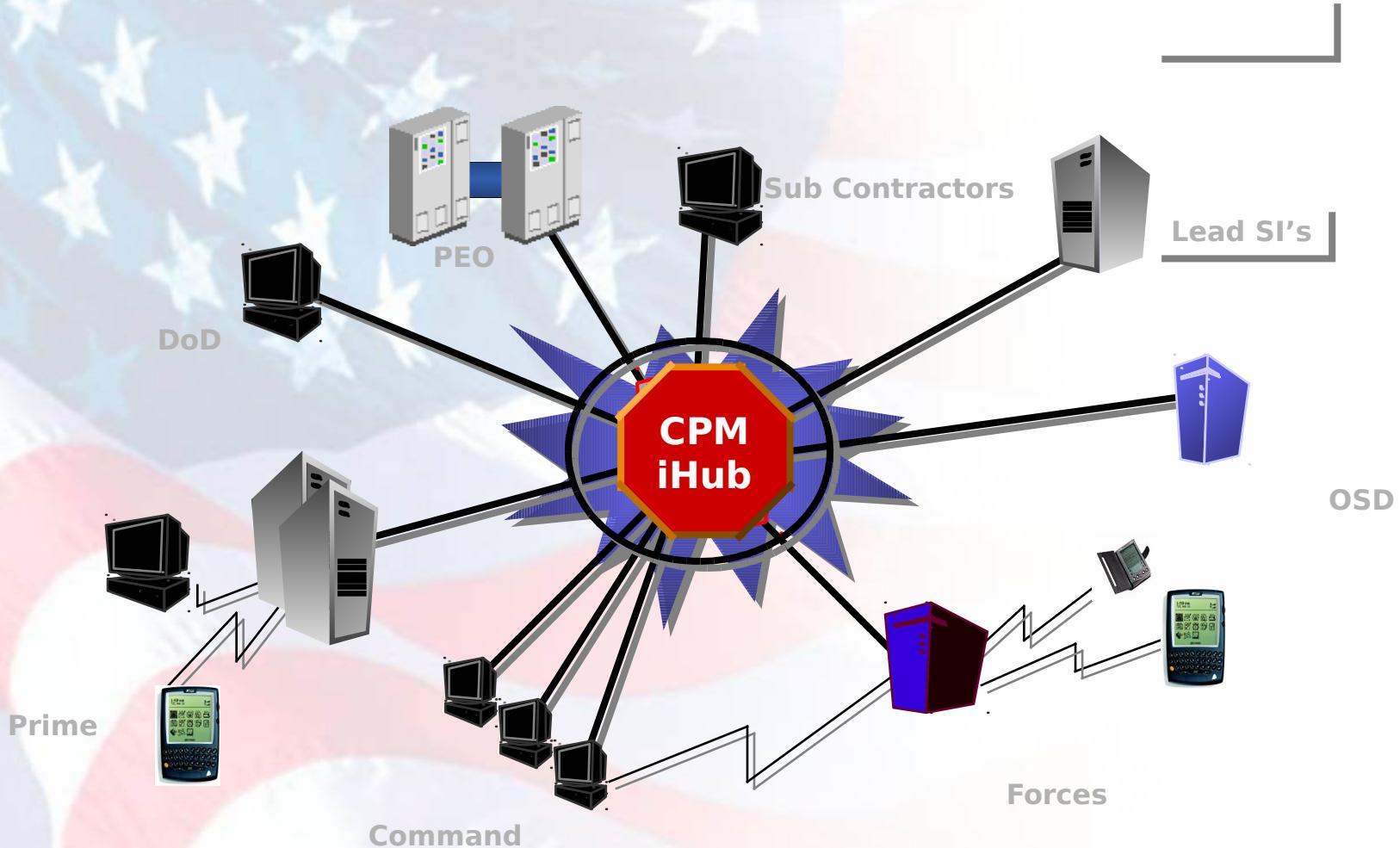
Value Chain



System Silos

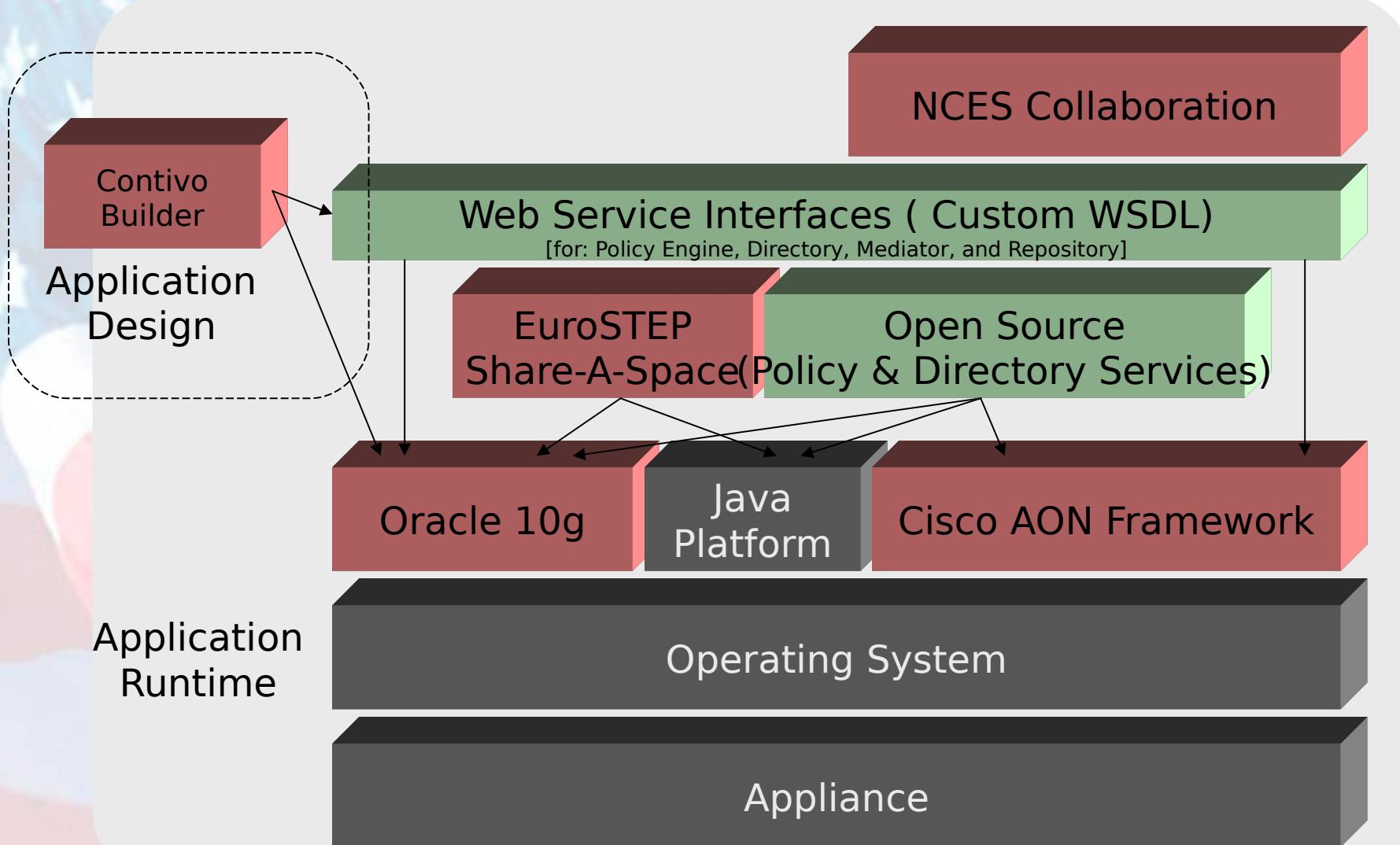


Oracle's Collaborative Program Management Hub (iHub)





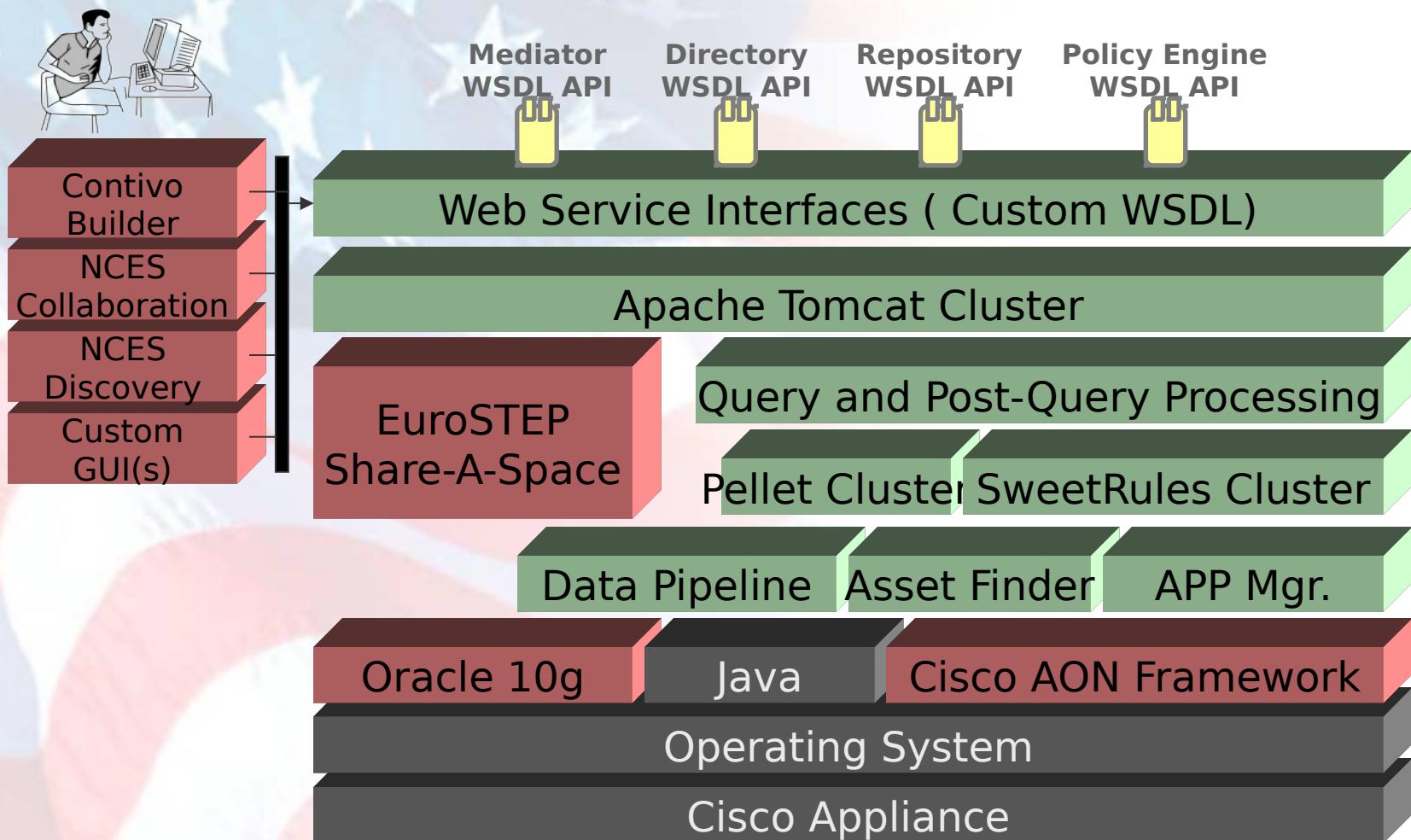
Data Interoperability Architecture





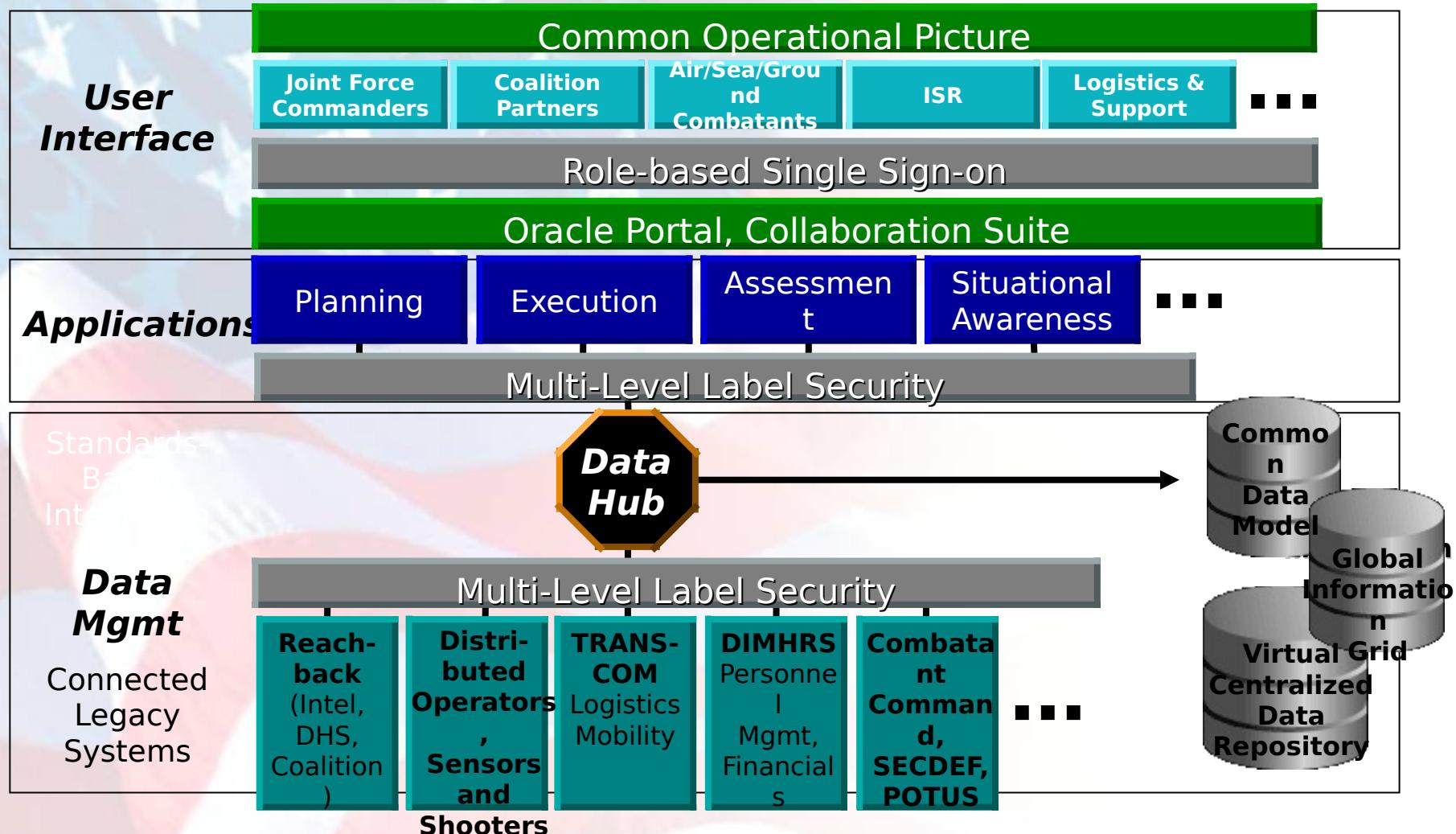
Data Interoperability Architecture

Full Stack





Oracle NCO Reference Architecture





CPM iHub Solution Architecture

Users

Common Operational Picture



...

Role-based Single Sign-on

Presentation

Enterprise Portal, Collaboration, Business Intelligence,

Applications

Resource Management

QASP Compliance

Program Management

Knowledge Management

...

Multi-Level Label Security

Standards Base Inter

Program Info Sharing Partners



Central Repository

Data Warehouse



ETL



OLAP

Data Mining

Connected Legacy Systems

Multi-Level Label Security

Finance

PDM

SCM

HR

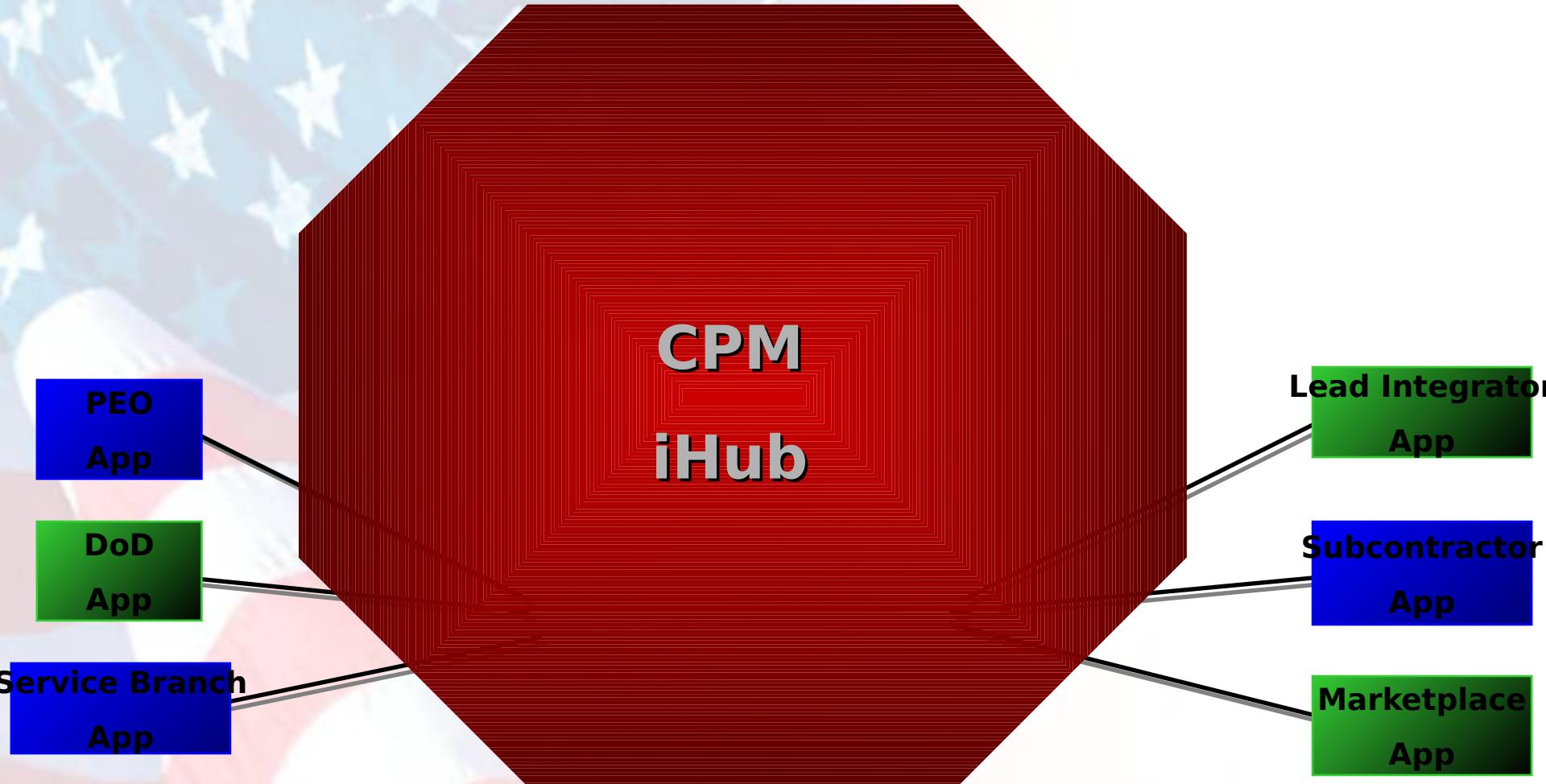
CAD

...



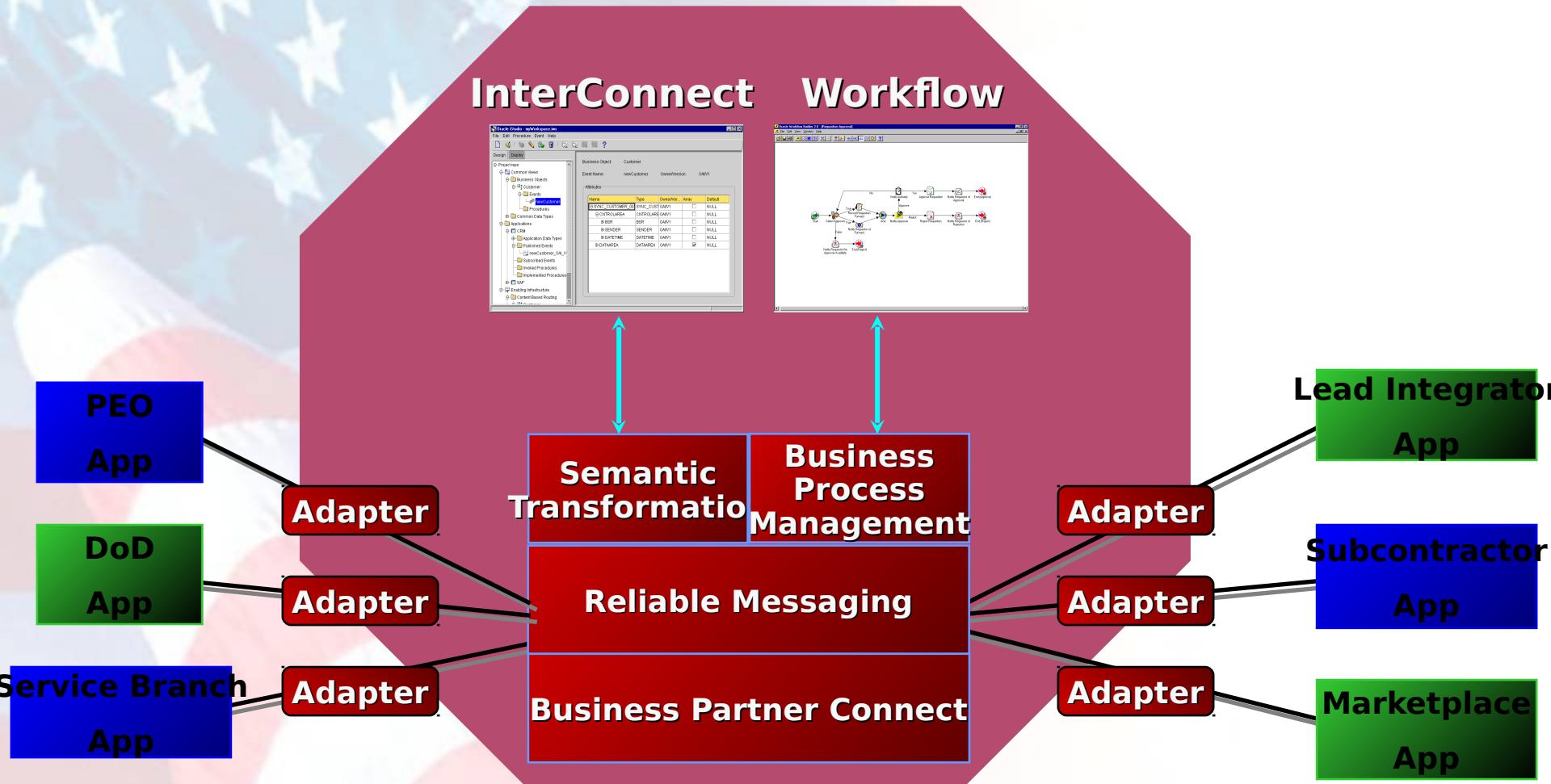


A look inside the CPM iHub





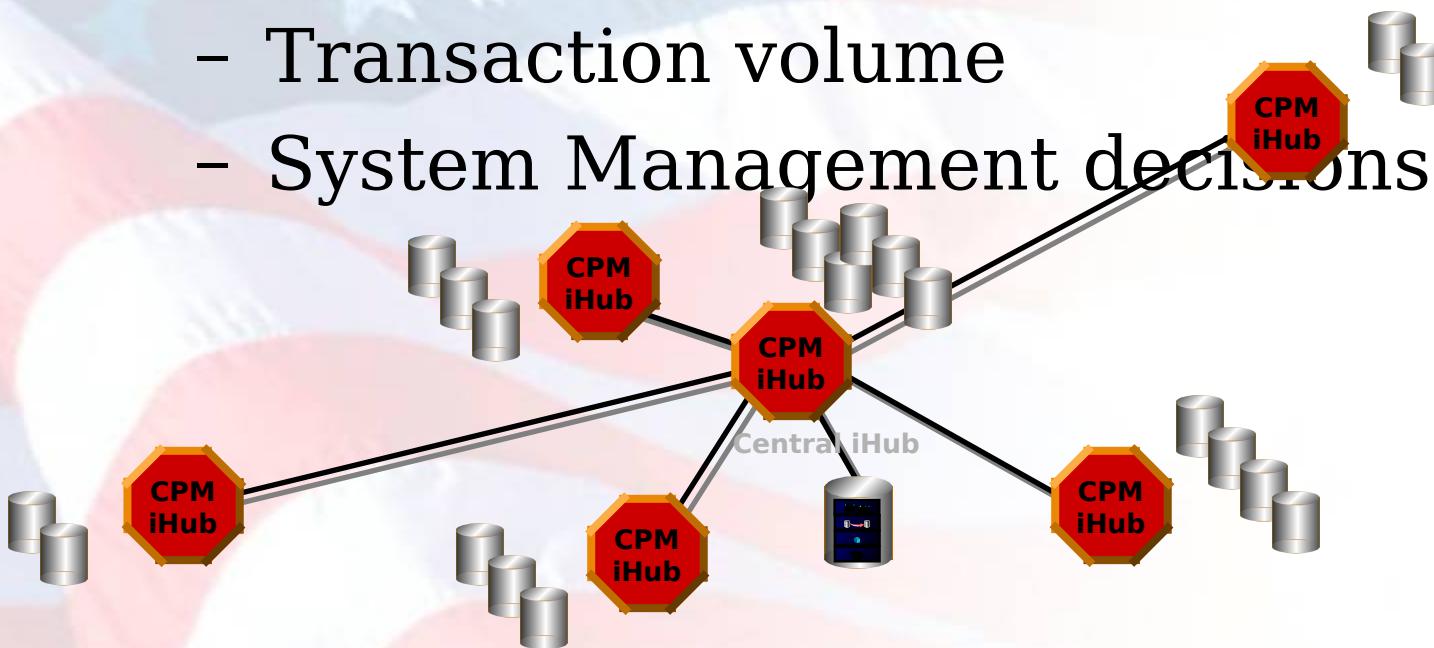
A look inside the CPM iHub





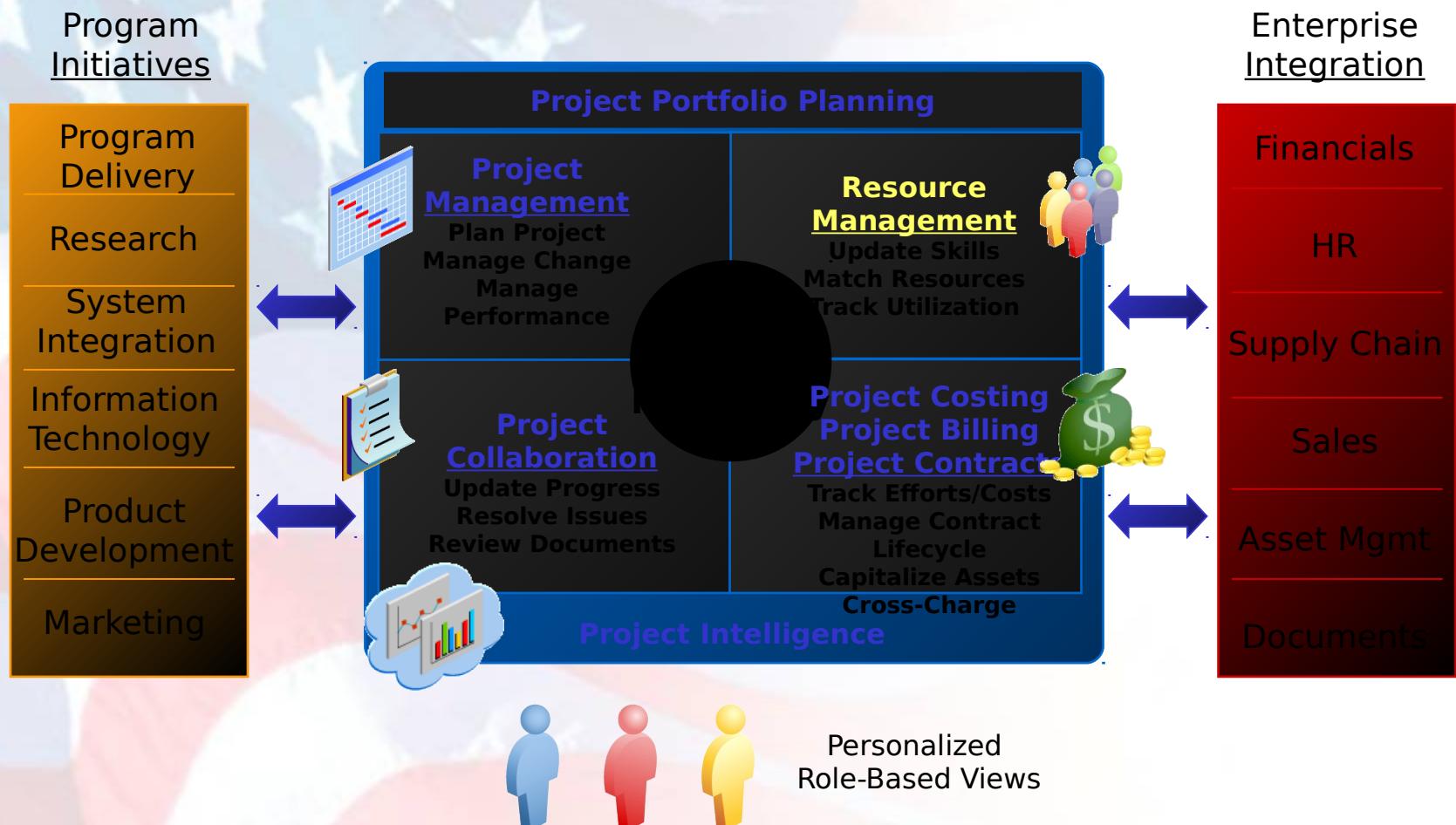
Collaborative Program Management Network

- An iHub may be networked with other iHubs across a GRiD fabric, based upon:
 - Transaction volume
 - System Management decisions





Oracle Collaborative Program Management

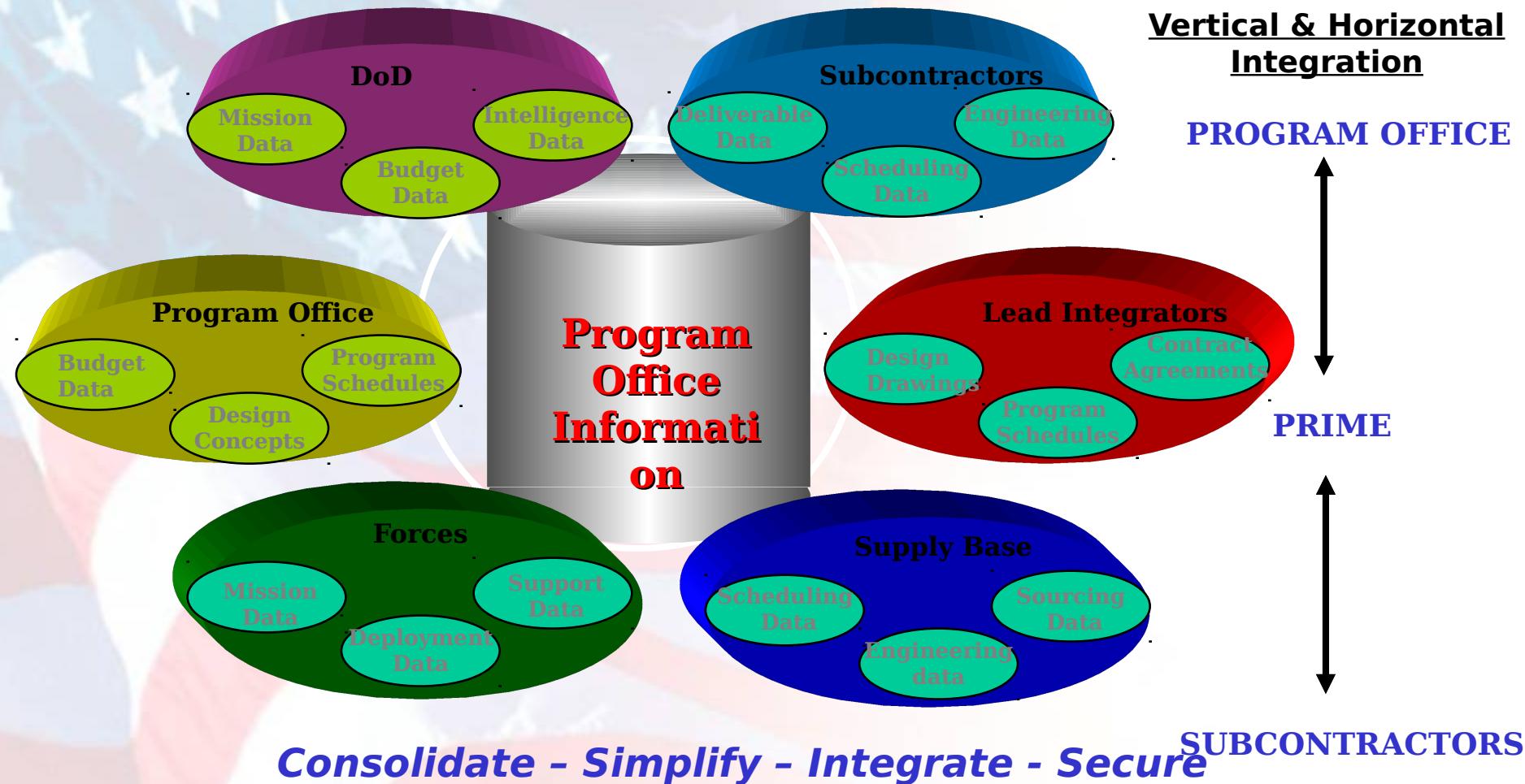




The Bigger Picture

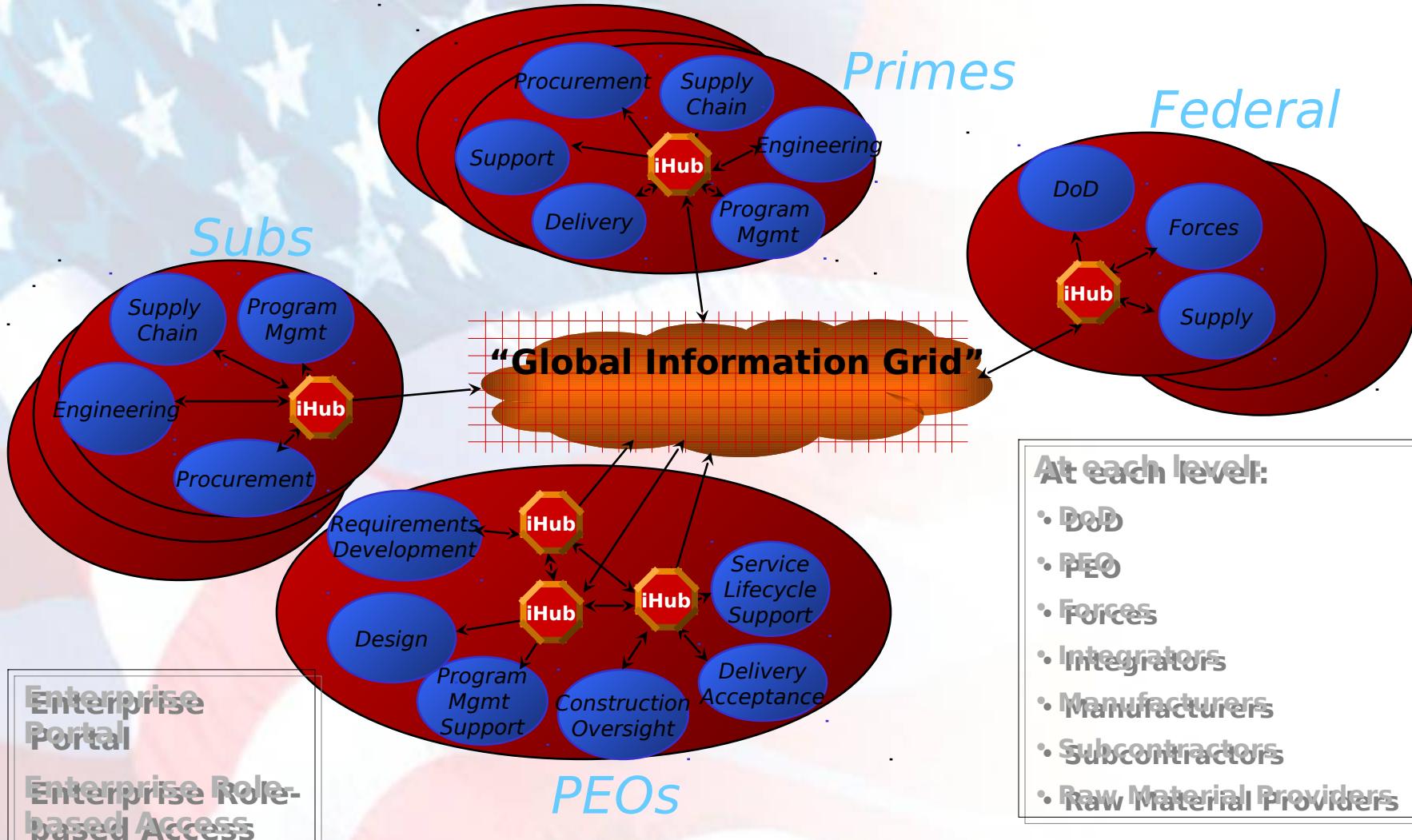


Building the pieces for Network-Centric Collaborative Program Management





The Future—Powered by Grid Computing





ICATS

In-Transit Critical Asset Tracking System

- **ICATS is a management tool that provides end to end visibility information in a context and volume previously unavailable**
- **Genesis - After 9/11, the need to “hand massage” and “birddog” critical parts being shipped into a new Theater of Operations and provide instant status to warfighter**
- **ICATS is a tool for:**
 - Unit-level supply personnel
 - Regional Supply Squadrons (RSS)
 - Air Logistics Centers / Supply Chain Managers
 - Major Command Headquarters
 - CONUS Distribution Mgt Cell (CDMC) and Logistics Readiness Center (LRC)
- **Answers Most Important Questions**
 - **WHERE IS MY PART?**
 - **WHEN WILL I GET IT?**



ICATS

In-Transit Critical Asset Tracking System

[Login](#) | [Register](#) | [FAQ](#) | [Contacts/Support](#)

Registration

Title:

First Name:

Last Name:

Email Address:

Organization:

Account Type: Base Level

- Diego Garcia, Diego Garcia
- Diego Garcia, Diego Garcia
- Djibouti, Djibouti
- Dushanbe, Tajikistan
- Fairford, England
- Ganci, Kyrgyzstan
- Incirlik, Turkey
- Jacobabad, Pakistan
- Kandahar, Afghanistan
- Karshi Khanabad, Uzbekistan
- King Faisals AB, Al Jafr, Jordan
- Kuwait City, Kuwait

[Lost your validation](#)

Warfighter registers for location of interest





ICATS

In-Transit Critical Asset Tracking System

[User Account](#) | [Shipment Summary](#) | [Shipment Feedback](#) | [FAQ](#) | [Contacts/Support](#) | [Logout](#)

Last Update: 3/3/2006 09:40 EST

Feedback:**TCN Requests:**

New:	0	Open:	0
Open:	0	Retrieved:	0
Closed:	0	Not found:	0

After logging in only shipments are displayed that user registered
in this case Diego Garcia shipments are displayed,

Shipment Summary: Drag a column header here to group by that column

TCN	Destination	Estimated Delivery Date	Status	ICATS Mode	Mode	Progress	Shipment Feedback
FB487253559170	Diego Garcia	01-04-2006		AMC	J	214 DELIVERY	[Add Feedback]
FB487253559171	Diego Garcia						[Add Feedback]
FB487253559172	Diego Garcia						[Add Feedback]
FB487253569170	Diego Garcia			AMC		SHIP (AS/AR)	[Add Feedback]
FB487253569171	Diego Garcia						[Add Feedback]
FB487253569172	Diego Garcia	12-30-2005		AMC	J	214 DELIVERY	[Add Feedback]
FB487253579170	Diego Garcia	12-31-2005		AMC	J	214 PICKUP	[Add Feedback]
FB487253579171	Diego Garcia						[Add Feedback]
FB487253609172	Diego Garcia	01-04-2006		AMC	J	SHIP (AS/AR)	[Add Feedback]
FB487253609173	Diego Garcia	01-05-2006		AMC	J	214 PICKUP	[Add Feedback]
FB487253619171	Diego Garcia	01-05-2006		AMC	J	SHIP (AS/AR)	[Add Feedback]
FB487253620776	Diego Garcia			AMC		SHIP (AS/AR)	[Add Feedback]
FB487253639171	Diego Garcia	01-05-2006		AMC	J	SHIP (AS/AR)	[Add Feedback]
FB487260020589	Diego Garcia						[Add Feedback]



1

[Find TCN](#)[Request TCN Tracking](#)

Have the ability to search by TCN

Would like to add place holders for searches by Doc #, NSN, UID and RFID Tag
Place holders would not be active for the POC



ICATS

In-Transit Critical Asset Tracking System

User Account | [Shipment Summary](#) | [Shipment Feedback](#) | [FAQ](#) | [Contacts/Support](#) | [Logout](#)

Last Update: 3/3/2006 09:40 EST
Feedback: **TCN Requests:**
New: 0 Open: 0
Open: 0 Retrieved: 0
Closed: 0 Not found: 0

After reviewing the EDDs warfighter could generate feedback
Asking for more explanation or expedite service

Shipment Summary:

Drag a column header here to group by that column

TCN	Destination	Estimated Delivery Date	Status	ICATS Mode	Mode	Progress	Shipment Feedback
FB487253559170	Diego Garcia	01-04-2006		AMC	J	214 DELIVERY	[Add Feedback]
FB487253559171	Diego Garcia						[Add Feedback]
FB487253559172	Diego Garcia						[Add Feedback]
FB487253569170	Diego Garcia			AMC		SHIP (AS/AR)	[Add Feedback]
FB487253569171	Diego Garcia						[Add Feedback]
FB487253569172	Diego Garcia	12-30-2005		AMC	J	214 DELIVERY	[Add Feedback]
FB487253579170	Diego Garcia	12-31-2005		AMC	J	214 PICKUP	[Add Feedback]
FB487253579171	Diego Garcia						[Add Feedback]
FB487253609172	Diego Garcia	01-04-2006		AMC	J	SHIP (AS/AR)	[Add Feedback]
FB487253609173	Diego Garcia	01-05-2006		AMC	J	214 PICKUP	[Add Feedback]
FB487253619171	Diego Garcia	01-05-2006		AMC	J	SHIP (AS/AR)	[Add Feedback]
FB487253620776	Diego Garcia			AMC		SHIP (AS/AR)	[Add Feedback]
FB487253639171	Diego Garcia	01-05-2006		AMC	J	SHIP (AS/AR)	[Add Feedback]
FB487260020589	Diego Garcia						[Add Feedback]

[Find TCN](#)[Request TCN Tracking](#)

1

[\[Add Feedback\]](#)

Click on Add Feedback





ICATS

In-Transit Critical Asset Tracking System

User Account | Shipment Summary | Shipment Feedback | FAQ | Contacts/Support | Logout

Shipment Feedback Detail

TCN:	FB487253619171
Current Status:	New
Date Entered:	3/3/2006
Date Closed:	N/A
Resolution:	N/A
Initial Problem Description:	can you get this shipped via Diego Airlink

Shipment Feedback Discussion

There are no discussion items for this feedback.

[Add Discussion.](#)

Warfighter adds comments,
Automatically updates CDMC view

ICATS

In-Transit Critical Asset Tracking System

Last Update: 3/3/2006 09:06 EST
 New Feedback: 1
 Open TCH Requests: 3
 Last Database Update: N/A

Workload | User Management | Feedback Management | System Tools | Logout

CDMC view

Workload Management

Drag a column header here to group by that column

CDMC #	TCN	Destination	EDD	Progress	Status	ICATS Mode	POE	POD	Engine?	Mode
40993	FB487260059170	Diego Garcia							No	
28470	FB487260069170	Diego Garcia	01-11-2006	POE RCPT		AMC	OKO	NKW	No	J
28471	FB487260069200	Diego Garcia							Yes	
28472	FB487260069201	Diego Garcia	01-14-2006	214 PICKUP		AMC	SUU	NKW	Yes	J
28473	FB487260069202	Diego Garcia		214 PICKUP		CC			Yes	J
28474	FB487260069203	Diego Garcia	01-14-2006	214 PICKUP		AMC	SUU	NKW	Yes	J
28475	FB487260069204	Diego Garcia	01-17-2006	214 PICKUP		AMC			Yes	J
28476	FB487260079170	Diego Garcia	01-18-2006	ORIGIN RCPT		AMC			No	J
28477	FB487260079171	Diego Garcia							No	
28478	FB487260079172	Diego Garcia							No	
28479	FB487260079173	Diego Garcia							No	
28480	FB487260079174	Diego Garcia							No	
28481	FB487260079175	Diego Garcia							No	
28482	FB487260079176	Diego Garcia							No	

Edit/Add TCN

New feedback is displayed
 CDMC needs to respond

Workload management prioritizes workload



Able to sort based on EDDs

EDD ▲

- + EDD : 01-05-2006 (3)
- + EDD : 01-06-2006 (7)
- + EDD : 01-07-2006 (7)
- + EDD : 01-08-2006 (3)
- + EDD : 01-09-2006 (4)
- + EDD : 01-10-2006 (2)
- + EDD : 01-11-2006 (1)
- + EDD : 01-12-2006 (6)
- + EDD : 01-13-2006 (1)
- + EDD : 01-14-2006 (3)
- + EDD : 01-16-2006 (1)
- + EDD : 01-17-2006 (1)
- + EDD : 01-18-2006 (1)
- + EDD : 01-19-2006 (1)

[Edit/Add TCN](#)

Workload Management

Able to get general info about shipment

EDD												
EDD : 01-11-2006 (1)												
EDD : 01-12-2006 (6)												
EDD : 01-13-2006 (1)												
CDMC #	TCN	Destination	Progress	Status	ICATS Mode	POE	POD	Engine?	Mode	Aircraft	CDMC Action?	
28453	FB480460099602	AL Udeid, Qatar	ORIGIN RCPT	CC				No	J	C-135	No	
EDD : 01-14-2006 (3)												
EDD : 01-16-2006 (1)												
EDD : 01-17-2006 (1)												
CDMC #	TCN	Destination	Progress	Status	ICATS Mode	POE	POD	Engine?	Mode	Aircraft	CDMC Action?	
28475	FB487260069204	Diego Garcia	214 PICKUP	AMC				Yes	J	ENG	Yes	
EDD : 01-18-2006 (1)												
EDD : 01-19-2006 (1)												
CDMC #	TCN	Destination	Progress	Status	ICATS Mode	POE	POD	Engine?	Mode	Aircraft	CDMC Action?	
28487	FB487260099173	Diego Garcia	ORIGIN RCPT	AMC				No	9	B-52	Yes	

Click on TCN to get detailed shipment information

ACC MICAP Board

Aircraft:	B-52	Tail Number:	61A1024	Cann:	
TCN:	FB487260069170	Engine:			
Description:	A-LATCH				
NSN:	5342007940714SX	SOS:	SMS		
Lead Item:			Problem Item:		
Bullet:	AMC:INCHECKED @ YOKOTA AB JP 9 JAN/0639Z...10 JAN/0213/IIW				

ICATS Generated Data

Destination	Diego Garcia
ICATS Mode	AMC
ICATS Status	
Progress	POE RCPT
Progress Date	1/9/2006

CDMC Toolset:

CDMC Action Required:	No
Estimated Delivery Date:	
Actual Delivery Date:	
Action Taken:	A-LATCH

Delivery Window

Earliest Delivery Date:	1/11/2006
Projected Delivery Date:	1/11/2006
Latest Delivery Date:	1/11/2006

Events

P1	Jan 6 2006	Ship Date (AS/AR)
P2	Jan 6 2006	858 Pickup Date
P3		
P4	Jan 6 2006	Origin Recpt Date (CMOS)
P5	Jan 6 2006	Origin Lift Date (CMOS)
P6		214 Pickup Date
P7	Jan 9 2006	POE Rcpt Date
P8		POD Lift Date
P9		214 Delivery Date
P10		Termination Rcpt Date
P11		Delivery Date (D6)

Parameters

Mode	J
POE	OKO
POD	NKW
Carrier	
Tracking	675484497013
RDD	
Special Handling	

ACC MICAP information automatically displayed,
For POC would add field that displays IUID in this area

ACC MICAP Board

Aircraft: B-52	Tail Number: 61A1024	Cann: []
TCN: FB487260069170	Engine: []	
Description: A-LATCH		
NSN: 5342007940714SX	SOS: []	SMS []
Lead Item: []	Problem Item: []	
Bullet: AMC:INCHECKED @ YOKOTA AB JP 9 JAN/0639Z...10 JAN/0213/IW		

ICATS Generated Data

Destination: Diego Garcia
ICATS Mode: AMC
ICATS Status: []
Progress: POE RCPT
Progress Date: 1/9/2006

Delivery Window

Earliest Delivery Date: 1/11/2006
Projected Delivery Date: 1/11/2006
Latest Delivery Date: 1/11/2006

CDMC Toolset:

CDMC Action Required: No
Estimated Delivery Date: []
Actual Delivery Date: []
Action Taken: A-LATCH

Events

P1	Jan 6 2006	Ship Date (AS/AR)
P2	Jan 6 2006	858 Pickup Date
P3	[]	
P4	Jan 6 2006	Origin Recpt Date (CMOS)
P5	Jan 6 2006	Origin Lift Date (CMOS)
P6	[]	214 Pickup Date
P7	Jan 9 2006	POE Rcpt Date
P8	[]	POD Lift Date
P9	[]	214 Delivery Date
P10	[]	Termination Rcpt Date
P11	[]	Delivery Date (D6)

Parameters

Mode: J
POE: OKO
POD: NKW
Carrier: []
Tracking: 675484497013
RDD: []
Special Handling: []

End to End visibility displayed through events P1-P11.
Would add RFID events into this view.

Parameters of the shipment display other shipping information
RFID tags and passive tag numbers would be added under this section

ACC MICAP Board

Aircraft: B-52	Tail Number: 61A1024	Cann: []
TCN: FB487260069170	Engine: []	
Description: A-LATCH		
NSN: 5342007940714SX	SOS: []	SMS: []
Lead Item: []	Problem Item: []	
Bullet: AMC:INCHECKED @ YOKOTA AB JP 9 JAN/0639Z...10 JAN/0213/IIW		

ICATS Generated Data

Destination: Diego Garcia	Delivery Window	
ICATS Mode: AMC	Earliest Delivery Date: 1/11/2006	
ICATS Status: []	Projected Delivery Date: 1/11/2006	
Progress: POE RCPT	Latest Delivery Date: 1/11/2006	
Progress Date: 1/9/2006		

CDMC Toolset:

CDMC Action Required: No
Estimated Delivery Date: []
Actual Delivery Date: []

Action Taken: A-LATCH

Events

P1	Jan 6 2006	Ship Date (AS/AR)
P2	Jan 6 2006	858 Pickup Date
P3	[]	
P4	Jan 6 2006	Origin Recpt Date (CMOS)
P5	Jan 6 2006	Origin Lift Date (CMOS)
P6	[]	214 Pickup Date
P7	Jan 9 2006	POE Rcpt Date
P8	[]	POD Lift Date
P9	[]	214 Delivery Date
P10	[]	Termination Rcpt Date
P11	[]	Delivery Date (D6)

Parameters

Mode	J
POE	OKO
POD	NKW
Carrier	[]
Tracking	675484497013
RDD	[]
Special Handling	[]

ICATS generated data due to logistics data and destination specific performance

ACC MICAP Board

Aircraft: B-52	Tail Number: 61A1024	Cann: []
TCN: FB487260069170	Engine: []	
Description: A-LATCH		
NSN: 5342007940714SX	SOS: []	SMS: []
Lead Item: []	Problem Item: []	
Bullet: AMC:INCHECKED @ YOKOTA AB JP 9 JAN/0639Z...10 JAN/0213/IIW		

ICATS Generated Data

Destination: Diego Garcia	Delivery Window
ICATS Mode: AMC	Earliest Delivery Date: 1/11/2006
ICATS Status: []	Projected Delivery Date: 1/11/2006
Progress: POE RCPT	Latest Delivery Date: 1/11/2006
Progress Date: 1/9/2006	

CDMC Toolset:

CDMC Action Required: No
Estimated Delivery Date: []
Actual Delivery Date: []
Action Taken: A-LATCH

Events

P1	Jan 6 2006	Ship Date (AS/AR)
P2	Jan 6 2006	858 Pickup Date
P3	[]	
P4	Jan 6 2006	Origin Recpt Date (CMOS)
P5	Jan 6 2006	Origin Lift Date (CMOS)
P6	[]	214 Pickup Date
P7	Jan 9 2006	POE Rcpt Date
P8	[]	POD Lift Date
P9	[]	214 Delivery Date
P10	[]	Termination Rcpt Date
P11	[]	Delivery Date (D6)

Parameters

Mode	J
POE	OKO
POD	NKW
Carrier	[]
Tracking	675484497013
RDD	[]
Special Handling	[]

CDMC update area, add information based human intervention

ACC MICAP Board

Aircraft:	B-52	Tail Number:	61A1024	Cann:	
TCN:	FB487260079172	Engine:			
Description:	DOOR, AIRCRAFT				
NSN:	1560005756307FG	SOS:	FHZ		
Lead Item:		Problem Item:			
Bullet:	J. STEVENSON: 336-3251 ...ITEM B/O...ESD 20 JAN/CCMTS...9 JAN/1100/MKS				

ICATS Generated Data

Destination	Diego Garcia
ICATS Mode	
ICATS Status	
Progress	
Progress Date	

Delivery Window

Earliest Delivery Date:	
Projected Delivery Date:	
Latest Delivery Date:	

CDMC Toolset:

CDMC Action Required:	Yes <input type="button" value="▼"/>
Estimated Delivery Date:	
Actual Delivery Date:	
Action Taken:	DOOR, AIRCRAFT

Events

P1		Ship Date (AS/AR)
P2		858 Pickup Date
P3		
P4		Origin Recpt Date (CMOS)
P5		Origin Lift Date (CMOS)
P6		214 Pickup Date
P7		POE Rcpt Date
P8		POD Lift Date
P9		214 Delivery Date
P10		Termination Rcpt Date
P11		Delivery Date (D6)

Parameters

Mode	
POE	
POD	
Carrier	
Tracking	
RDD	
Special Handling	

Shipments without pipeline information are backordered items, not in transportation pipeline. After POC would expand visibility of ICATS to start at time of requisition.



ICATS

In-Transit Critical Asset Tracking System

Last Update: 3/3/2006 10:36 EST
New Feedback: 0
Open TCN Requests: 3
Last Database Update: N/A

[Workload](#) | [User Management](#) | [Feedback Management](#) | [System Tools](#) | [Logout](#)**Shipment Feedback Management:**

TCN	Status	Date Opened	Date Closed	
FB481150809600	Closed	02-27-2006	03-03-2006	[View Details]
FB487253619171	Open	03-03-2006		[View Details]

CDMC will manage open feedbacks



ICATS

In-Transit Critical Asset Tracking System

[Workload](#) | [User Management](#) | [Feedback Management](#) | [System Tools](#) | [Logout](#)

Last Update: 3/3/2006 10:38 EST
New Feedback: 0
Open TCN Requests: 3
Last Database Update: N/A

Shipment Feedback Detail

TCN: FB487253619171
Current Status: Open
Date Entered: 3/3/2006
Date Closed: N/A
Resolution: N/A
Initial Problem Description: can you get this shipped via Diego Airlink

Shipment Feedback Discussion

There is currently one discussion item for this feedback.

3/3/2006 - LSO Admin

[Add Discussion.](#)[Post Resolution.](#)

Warfighter wants shipment moved via
Diego Airlink



ICATS

In-Transit Critical Asset Tracking System

Last Update: 3/3/2006 10:03 EST
New Feedback: 0
Open TCN Requests: 3
Last Database Update: N/A

[Workload](#) | [User Management](#) | [Feedback Management](#) | [System Tools](#) | [Logout](#)

Shipment Feedback Detail

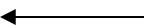
TCN: FB487253619171
Current Status: Open
Date Entered: 3/3/2006
Date Closed: N/A
Resolution: N/A
Initial Problem Description: can you get this shipped via Diego Airlink

Shipment Feedback Discussion

There is currently one discussion item for this feedback.

3/3/2006 - LSO Admin

Fedex has been notified and will be picking up shipment for delivery to Yokota for AMC delivery to Diego

[Add Discussion.](#)[Post Resolution.](#)

CDMC adds their actions taken, which Automatically seen by the warfighter



Internet



Next Steps

- Continue to participate with Marine LAV and UMD (F-18) teams to enable S&R, IUID, master data cleanup and data interoperability
 - IUID agreed; vehicle sensor implementation underway, next PM meeting in **October**
 - F-18 demonstration in **October**
- Work with BTA on SPOE and next generation GIG rationalization
 - Work with BTA and the weapons systems program offices (JSF, DDX and FCS) from **October**
- Continue to rationalize the data interoperability programs
 - CLOE (**July 25**), JALog, BWS, SPAWARS (**August 2**). Way ahead meeting on **September 15**
- Work with TLCSM and LPP to select software vendors/standards to enable required capabilities in design and sustainment (H60)
 - Work with LPP/BTA on the rationalization of standards with the software and standards primes next AIA meeting **July 27**
 - Continue to work with the expansion of the ELITE program (NavAir) from **August**
- Work with BTA on materiel visibility programs to take current functionality and expand it to other Service logistics systems
 - ICATS inclusion of IUID/RFID and the potential expansion of this process to other like systems starting in **September**
- Monitor BTA progress on Master Data and MIL/DLMS programs
 - Continue to monitor the progress of the Master Data cleanup (on-going) and the MILS/DLMS (**December**) programs



Project Details

Objectives	Initiative	Status	Timeline	Priority/Next Steps	OSD Owner(s) Assigned	Owners/Spouses	Comment	
Sense and Respond Programs	ENTERPRISE	OPEN	Dec-06	Dec-06	Rick Lanier	Carl Zihl/Rob Lusardi/Rob Anderson/John Chisholm	RTD/DO has received commitment that this IUD and RTD holds and maintains the most critical data, databases and information capturing the most critical and costly items.	
Marine LAV	Existing and funded program by the Marines to sensor a set of vehicles, understand how the sensor data is to be used, and determine the best location of the sensors, and determine the optimum location of the sensors.	OPEN	Dec-06	Dec-06	Fred Tiltack	LPP	This will produce another SPOE variant if successful.	
UMD (P-30)	Existing and funded program by the LPP team in support of SPOE common data exchange core components. Naval Marine and an international community to ultimately develop a standard for the SPOE. This phase 1, program will develop the SPOE protocols.	OPEN	Oct-06	Oct-06	Chuck Silva	LSF PMS	SPOE functionality is desired but no weapon system funding is in place to enable it.	
ISF	These programs, and others to be evaluated, will be evaluated to determine the best way to build and field logistics programs to make the maintenance and support of the weapon system more efficient and effective. After the Service transformation programs (FRC's), AF L2, and others, the ISF will be the next major interoperability program.	OPEN	Oct-06	Oct-06	Dave Paulina	MSICR	This will take effort from many OSD offices along with Service alignment.	
Wav Forward 2007 Objectives	Review the next weapon system to use the "Sense and Respond" methodology and the processes to enable optimized maintenance and logistics.	OPEN	Jan-07	Jan-07	Lohn Peterson	The Services, Acquisition PMS and Industry	This will take a lot of coordination between Services and the Acquisition PMS.	
2007 Objectives Data Interoperability Programs	ICATS	OPEN	May-06	May-06	BTA	Mark Reboulet/Mike Lake	Can be operationalized - Air centric at this point - Air Force driven.	
	US Army system based on SBSS/DSIS, and in an alternate instance it includes IUD and RTD.	OPEN	Jul-06	Jul-06	MR&MP	Miranda Koenig/Chris Reid	Programmatic, Ground vehicle centric. The Army is moving to a more holistic logistics view with a total system view.	
	US Army system that defines the data interoperability standards for the Army's future weapon systems. This is both an overview architecture and has several mechanics that are developed and intended to use.	OPEN	Aug-06	Aug-06	MR&MP	Lois Lindholm/Michael Edelson	Could be an operational element to support CLOE, but it needs to be transitioned to the next weapon system. It is Holistic logistics view.	
Blue Water Solutions	LOCIS	OPEN	Aug-06	Aug-06	MR&MP	Mac Armstrong	Need to be funded to begin - Holistic logistics view.	
	Lockheed data interoperability program that could be an element of the CLOE program. Under ACTD and LCTD review.	OPEN	Aug-06	Aug-06	Navy/MR&MP	Larry Gwiazda/Roy Breslau/John Koenig	Operational in the Navy. To expand to the Air Force, more funding and operation funding will be required. - Holistic management tool.	
	A collection of teams with much experience and good ideas around a air center data interoperability program. Roll them into the CLOE with the intent to use the CLOE to achieve an 80% full solution as fast as the project.	OPEN	Aug-06	Aug-06				
SPAWARS	Navy high level decision support methodology/mechanism for data interoperability.	OPEN	02-Aug-06	02-Aug-06				
	These programs, and others, will be evaluated, will be evaluated to determine the best way to make the maintenance and support of the weapon system more efficient and effective.	OPEN	Oct-06	Oct-06				
Wav Forward 2007 Objectives Data Standards	Finalize the selection of the internal and external data interchange standards (e.g., CLOE, LOCIS, SPAWARS, etc.) to understand the optimal way forward.	OPEN	May-07	May-07	Lohn Peterson	The Services, various OSD departments and defense agencies		
	S10000	Data standard written into a policy memo but never followed up with a DODD or DODI.	OPEN	Aug-06	Aug-06	Fred Tiltack	ADS L - Tim Tate	AI Mize project - Mostly done.
	ISO 10000, Protocol 239 (PLC29) Continuation	Standard that is being advocated for use as a product life cycle nomenclature standard by the IUD director and MR&MP.	OPEN	Jul-06	Jul-06	Charlie Lord	LeAnthe Sumpter/Dave Paulina/Rat Nevin/RTA	ELITE 1000 helicopter program, between Industry, AMR and the Navy. This is the first time it is expanded to NAVFAC. DR types is under development for the NAVFAC at TARDEC - 4 item life cycle center.
	ISO 10000, Protocol 239 (PLC29) Continuation	Standard that is being advocated for use as a product life cycle nomenclature standard by this IUD director and MR&MP.	OPEN	Dec-06	Dec-06	Charlie Lord	LeAnthe Sumpter/Dave Paulina/Rat Nevin/RTA	Continuation of the ELITE 1000 helicopter program to operationalize the whole of the Navy Air community.
	GEIA-927	Standard that is attempting to wrapper the ISO, S10000, other CLOE, and other life cycle standards, to allow them all to work together.	OPEN	Oct-06	Oct-06	Fred Tiltack	Tim Colson	Still in the development phase. - Holistic logistics view.
	ISO 33262 MINOC	ISO standards centered on the maintenance aspect of a device's寿命周期.	OPEN	Oct-06	Oct-06	Green Killehstein		Penn State University driven project. DR types is under development for the Navy Air community. "As concert". This program needs continued funding.
	Other ISO APs	ISO standards centered on specific equipment or design or MTS processes.	OPEN	Oct-06	Oct-06	Fred Tiltack	ISO team	Other AP's are being modulated to work with the ISO 33262 standard - view CLOE, LOCIS, CLOE, CLOE, CLOE, CAD drawings, electronics, etc.
Wav Forward 2007 Objectives Data Connections	Common data representation used to help in the creation of a interoperability data environment.	OPEN	Oct-06	Oct-06				
	Create an intelligent network environment where data can flow freely between systems and at the request of an end user, data is gathered, aggregated, analyzed and reported.	OPEN	Jul-07	Jul-07				
Intelligent Networks Core Data Projects	SPOE	Common data representation used to help in the creation of a interoperability data environment.	OPEN	Jul-06	Jul-06	John Nivre	Don Hall	Where does this program stand 20%? 50%? 70%? Holistic logistics view. Holistic functional questions need to be addressed.
	Common data representation used to help in the creation of a interoperability data environment.	OPEN	TBD	TBD	Rick Lanier	NIOZ	This needs to be funded and the end user needs to be identified. DR types to a small environment before it can be expanded to the large project. - Holistic logistics view.	
	RTD working with Battelle Creek to clean up the Item and other needed data elements.	OPEN	Jul-06	Jul-06	Kris Heeg/Darren Carter	Charlene Woodman	Underway with the assistance of the RTA. - Continued funding required.	
	PLC 239 system transformation.	OPEN	Dec-06	Dec-06	Kris Heeg/Rick Lanier	Army LMC program	Underway with the assistance of the RTA. - Continued funding required.	
Topics of Interest and Impact	EVENTS	2006 Maintenance Symposium in Reno, NV to demonstrate S&R capability.	OPEN	Oct 23-26	Oct 23-26			
DOD Policy	All existing software assets entered in IUD Registry and used for the data environment.	OPEN	Sep-07	Sep-07	LeAnthe Sumpter	Marine LAV S&R Interoperability	Huge program very likely to be successful. Factors: - DR types	
ISF Platform Readiness	Transforming the DLA and Army ERP systems to be able to support the S&R environment. DR types to estimate the 400 column limit that exist today.	OPEN	Dec-06	Dec-06	Chuck Silva	The Services, various OSD departments and defense agencies	Huge program lots of complex and costly items.	
DOD Policy	All forces requiring the IUD objects need to be marked.	OPEN	Dec-10	Dec-10	LeAnthe Sumpter	LSE PMS	Huge program very likely to be successful. Factors: - DR types	
Overall Initiatives	Sense and Respond: maintenance and logistics via data interoperability driven by SIM.							



Next Steps Services Coverage



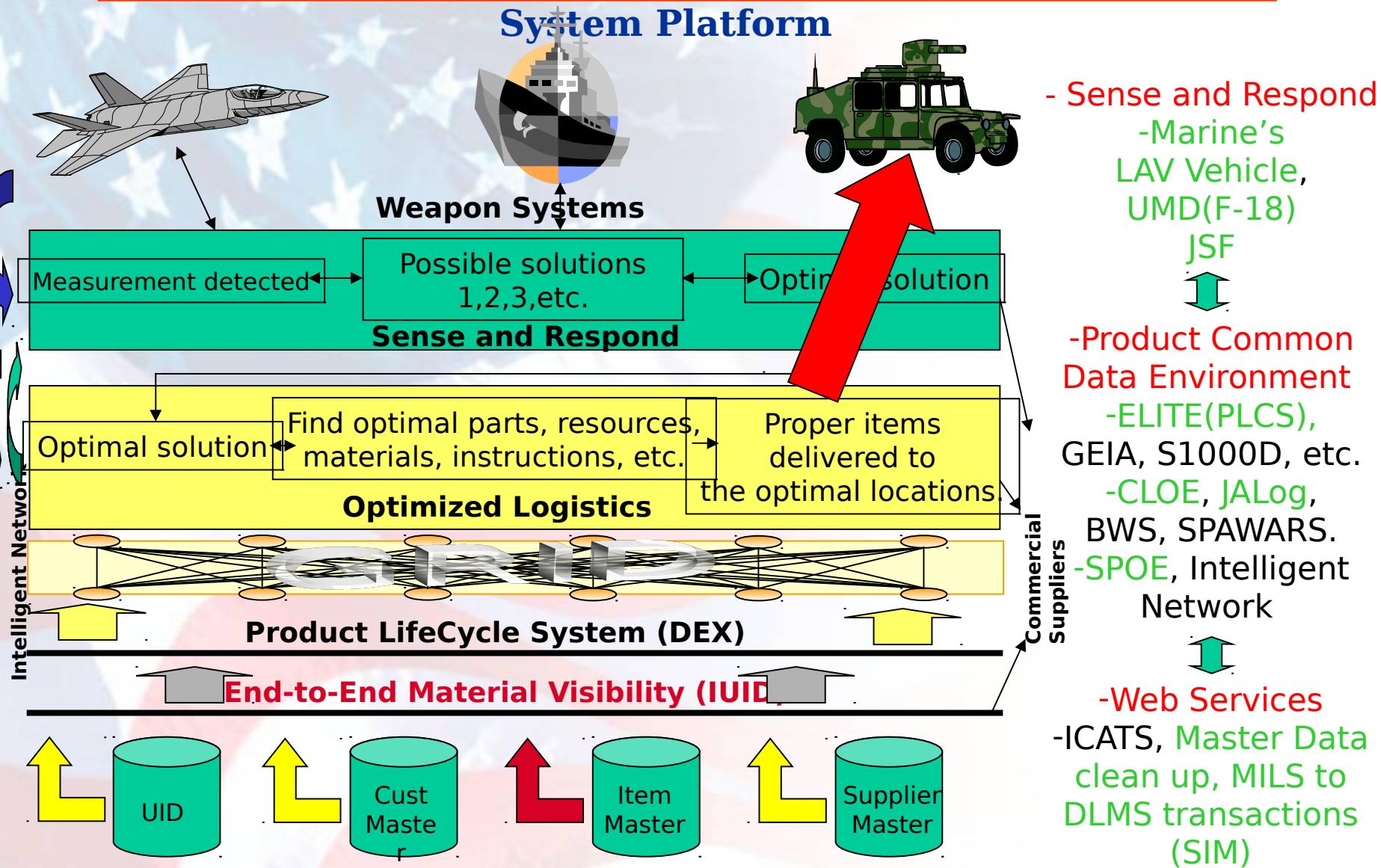
	USA	USMC	USAF	USN	DLA	Transcom
Sense						
Interpret Connections						
Interpret Standards						
Interpret Web Services						
Interpret Applications						
Respond Decision Analysis Tool						



Back Up Slides



Business Processes and IT Technology Stack Required to Deliver a Common Maintenance Process to a Weapon

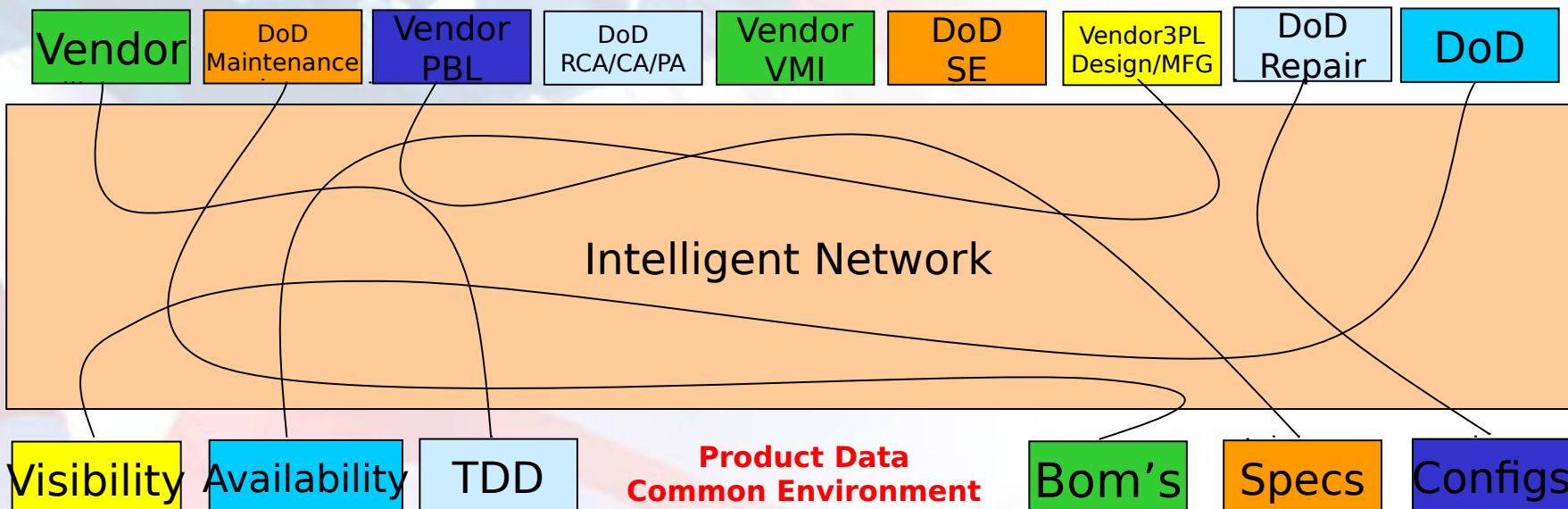




COCOM Demand Pull

Warfighter "Demand Pull-Through"

"Sense and Respond" Optimized Logistics



End-to-End Supply/Maintenance Operations

Web Service enabled "Reach Back"